

The most recent version of 40 CFR 60 Subpart Da, “Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978,” lists the following mercury limitations for new bituminous and waste coals:

- 60.45Da(a)(1): 0.020 lbs mercury/GW-hr or 20×10^{-6} lbs mercury/MW-hr for bituminous coal fired electric utility steam generating units.
- 60.45Da(1)(4): 0.016 lb mercury/GW-hr or 16×10^{-6} lbs mercury/MW-hr for coal refuse fired electric utility steam generating units.

40 CFR 60 Subpart Da was most recently revised and published in the Federal Register on **June 13, 2007, 72 FR 32722**.

Mercury limitations were initially proposed for new electric steam generating units in the Federal Register dated **January 30, 2004, 69 FR 4652**. 69 FR 4690 addresses the proposed limitations and how they were developed:

Bituminous units: 0.0060 lbs mercury /GW-hr or 6.0×10^{-6} lbs mercury/MW-hr
Coal refuse units: 0.0011 lbs mercury/GW-hr or 1.1×10^{-6} lbs mercury/MW-hr

69 FR 4693, middle column, begins a discussion on the regulatory approach for creating these proposed emission standards. The technical basis selected for establishing the mercury limitations for new sources is described as being the use of effective particulate matter (PM) controls and wet or dry flue gas desulfurization (FGD) systems on waste coal fired units. The technical basis selected for bituminous fired units is described as being effective PM controls, wet or dry FGD systems, and selective catalytic reduction (SCR) or selective non-catalytic reduction (SNCR).

The final rule for mercury emissions from new electric steam generating units was published in the Federal Register on **May 18, 2005, 70 FR 28606**. 70 FR 28615, middle column, notes that the emission limits for the various categories of regulated new electric utility steam generating units were changed to the following:

Bituminous units: 0.021 lbs mercury/GW-hr or 21×10^{-6} lbs mercury/MW-hr
Coal refuse units: 0.0014 lbs mercury/GW-hr or 1.4×10^{-6} lbs mercury/MW-hr

EPA, on 70 FR 28615, states that these changes were made based on comments received that noted the limitations in the January 30, 2004, proposed rule were derived from the proposed new source CAA section 112 emission limits. According to §111 of the Clean Air Act Amendments (CAAA), new source performance standards (NSPS) should reflect the degree of emission limitation and the percentage of reduction achievable through the application of the best technological system of emission reductions, whereas §112 of the CAAA requires a limitation that is not less stringent than the emission control achieved in practice by the best controlled similar source. The document goes on to note that NSPS requirements consider cost, energy use, and non-air impacts while the MACT requirements do not consider these factors. EPA agreed with the commenter that an

analysis undertaken according to requirements of §112 was inappropriate for use in the establishment of an NSPS requirement. EPA claims, in the middle paragraph on 70 FR 28615, that the information collection request (ICR) data collected in 1999 was re-analyzed. They also claim to have examined the mercury limits found in recently issued permits. Using these new methods and data sources, EPA refined the NSPS emission limits to those noted above.

On October 28, 2005, in 70 FR 62213, EPA published a notice of reconsideration on the mercury limitations in 40 CFR 60 Subpart Da. 70 FR 62216, middle column, begins a discussion concerning the statistical analyses used in determining these limits. This discussion notes that EPA, "...reviewed its analysis and agrees that the analysis used for CAMR contains certain inconsistencies and errors. Therefore, EPA has reanalyzed the data and revised its NSPS analysis. This revised analysis is provided in the docket and is summarized below."

The discussion goes on to note that the ICR contains data on only two units firing coal refuse. Both are fluidized bed combustors equipped with fabric filters and reported mercury control efficiencies of greater than 99%. One unit fired waste anthracite while the other unit fired bituminous. Based on the reanalysis of data for the NSPS emission limits, EPA proposed in this Federal Register the following mercury emission limitations for new electric steam generating units:

Bituminous units: 20×10^{-6} lbs/MW-hr or 0.020 lbs/GW-hr

Coal refuse units: 1.0×10^{-6} lbs/MW-hr or 0.0010 lbs/GW-hr

On June 9, 2006, in 71 FR 33388, EPA finalized the mercury standards in the NSPS as follows:

§60.45Da(a)(1): Bituminous coal fired units: 20×10^{-6} lbs/MW-hr or 0.020 lbs/GW-hr

§60.45Da(a)(4): Coal refuse fired units: 16×10^{-6} lbs/MW-hr or 0.016 lbs/GW-hr

70 FR 33395, middle and third column, provide a very brief summary of the reasons for the changes in the coal refuse units. EPA notes that the finalized NSPS mercury limits were based on a reanalysis of data and that the commenters submitted more testing data.

A May 31, 2006, memorandum from William H. Maxwell, Energy Strategies Group, OAQPS, EPA to Robert Wayland, Group Leader, Energy Strategies Group, OAQPS, EPA helps to explain the revisions made in the June 9, 2006, final rule. This document, which is entitled, "Revised new source performance standard (NSPS) statistical analysis for mercury emissions," may be found at the following link:

www.epa.gov/ttn/atw/utility/NSPS-053106.pdf

This memorandum explains the changes to the statistics that led to the final limits. ARIPPA, a trade association representing 14 different independent power producers, supplied additional testing data to supplement the two sets of data EPA used in setting the initial limitations for coal refuse units. Data are enumerated in Table A-1 of the May 31,

2006, memorandum. Additionally, ARIPPA pointed out issues within EPA's analyses and disputed the heat content value EPA assumed for coal refuse. ARIPPA's comments, and EPA's responses, are summarized in the May 31, 2006, document entitled, "Response to Significant Public Comments Received in Response to: Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units and the Removal of Coal- and Oil- Fired Electric Utility Steam Generating Units from the Section 112(c) List: Reconsideration (70 FR 62200; October 28, 2005) and Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units: Reconsideration (70 FR 62213; October 28, 2005)." This lengthy document may be found at the following link: www.epa.gov/ttn/atw/utility/final_com_resp_053106.pdf

The mercury limits as published in the June 9, 2006, Federal Register appear to be consistent with the limitations in the current revision of 40 CFR 60 Subpart Da, dated June 13, 2007.